ART. XIV.—*Handbuch der praktischen Medicin*, von Dr. HERMANN LEBERT, Professor der Medicin Klinik und der Speciellen Pathologie und Therapie in Breslau. Dritte verbesserte Auflage. Tübingen, 1863.

A Manual of Practical Medicine, by Dr. HERMANN LEBERT, Professor of Clinical Medicine and of Special Pathology and Therapeutics at Breslau. Third edition. Two vols., pp. 1091, 1074.

THE appearance of a new work upon the practice of medicine is always an interesting event to the medical scholar and the practitioner; it gives them a correct record of the progress made by the science since the last text-book appeared which is now becoming dingy on the shelves; it is presumed to present the position occupied by the art at the date upon its title-page; and in it are supposed to be summed up all the knowledge we possess in regard to diseases, and all the resources which study and observation and research have accumulated to cure them or to obviate their effects.

It is perhaps not too much to claim that more than ordinary interest attaches to a new work on this subject in a foreign language. While the objects of the science are as wide as our common humanity, limited by no territorial lines, there are well-known national peculiarities of thought and study, and divisions of the subject in the prosecution of which some nations are peculiarly apt. To observe and compare the result of these peculiarities in working out the great problem of the successful treatment of disease cannot but be highly beneficial. There are many important, very important, questions in regard to the application and effect of remedies yet subjects of discussion among us. Can we obtain any aid in their decision from the experience of one who has used them in the same diseases, but perhaps under different conditions? Can we derive any further information in regard to diseases than we already possess, either as to their relative frequency and mortality; or, more important still, as to their *natural history*—their course and termination when uninterfered with by art? Is the correctness of conclusions to which we have arrived substantiated by the testimony of an educated and experienced foreigner; or, is the necessity of their revision forced upon us by the diverse results at which he has arrived? These are some of the questions which naturally present themselves as we take such a work in our hands, the importance and interest of which justify us in our attempt to lay before our readers some information in regard to the latest and the leading work of the kind upon the practice of medicine in the medical literature of Germany.

As none of the author's works have been translated into our language, the presumption that some information in regard to him is necessary probably needs no apology. In Europe he is already well known to the profession, and his reputation is as high as it is extended. The scientific works upon which this rests occupy the highest rank, and some of them will certainly never be surpassed until our science shall have received other aids than it now has, and passed, in the progress making by all human knowledge, far beyond its present position. The chief of these may be briefly mentioned: In 1845, he published, in the French language, a treatise upon Physiological Pathology, in two volumes, octavo, with an atlas of twenty-two plates, consisting of experimental, microscopical, and clinical researches upon inflammation, tubercle, cancer, and allied subjects. In 1849, his *Traité Pratique des Maladies Scrofuleuses et Tuberculeuses,* an octavo volume of 820 pages, obtained the prize of the Imperial Academy of Medicine of Paris. In 1851, he published a *Traité Pratique des Maladies Cancereuses et des Affections Curables confondues avec le Cancer,* frequently quoted by some of the best writers in our language. But the work by which he is best known is his *Traité d'Anatomie Pathologique Générale et Spéciale,* the publication of which, by numbers, commenced in 1855. This beautiful work, the pride of every scholar fortunate enough to have a copy in his library, and the especial delight of every pathologist, consists of two volumes folio of text and some two hundred sheets of plates, drawn and engraved from nature, and the most of them coloured. It was the fruit of more than twelve years' labour in the hospitals of Paris, and he received assistance in its preparation from many of the most eminent physicians and surgeons of these establishments, while the proceedings and discussions of the various learned societies of the French capital afforded him rich materials. While, then, his experience as an author has been great and his success abundant, his labours as a practitioner have been such as to well qualify him for the preparation of such a work as that he now presents. How many years he has spent in private practice we cannot say; but besides the years of patient toil and investigation in Parisian hospitals while preparing the works we have mentioned, he was for five years at the head of the hospital of Zurich, in Switzerland, and is now and has been for five years past occupying the important chair of practice and clinical medicine at Breslau. These facts are enough, we believe, to authorize him to speak "as one having authority," to guarantee to us that, in referring to his book for instruction, we are seeking it of one able to give it, and to convince any one that if the author has ability, and those qualities of mind so necessary for success in practice, equal to the opportunities he has enjoyed, as we think we shall be able to show he possesses, then his work is well worthy our esteem and confidence, and must occupy a high position in the medical literature, not only of his own country, but of the world.

The work consists of two octavo volumes of nearly eleven hundred pages each, and the present is the third edition, the first having appeared scarcely more than three years ago; a fact which speaks far more strongly in its favour than it would in many other countries. It has already been translated into the Russian and Dutch languages, and has received the highest praises from medical journals of other countries. Its character in Europe is therefore well established; equally with the author, it has won a position beyond all question; and in turning to its examination our chief fears are that we cannot adequately avail ourselves of the valuable matter it contains, or do full justice to its many excellent characteristics.

We may state, first of all, what the work does *not* contain: it has no chapters introductory to its subject—a preface and a brief chapter upon classification, and the great division of the exanthemata is at once entered upon. There are no essays upon general pathology or therapeutics, and no space taken up with instruction in auscultation and percussion; with these subjects the student is presumed to be already acquainted. On the other hand, it contains several classes of disease not usually found in works upon practice in our language, and some of them we would gladly have seen omitted, and the space occupied by more full details in regard to other affections. Diseases of Females, for instance, take up about one hundred pages, a space insufficient to do them justice, and a needless compendium for those having access to the works of Kiwisch and Scanzoni. The article upon ovarian disease is very unsatisfactory to a reader of West and Simpson; it is certainly the least valuable part of the book. Then we have the subject of syphilis, extending over one hundred pages, which we find always in the works of surgeons, but which is here very ably, although briefly, presented; the arguments *pro* and *con* in regard to the duality of the virus, the infecting chancre and the chancroid, being fairly given, while due attention is bestowed upon internal or visceral syphilis, and especially affections of the nervous centres. The subject of toxicology occupies some one hundred and thirty pages, and is classified with German minuteness, including poisons of the animal, vegetable, and mineral kingdoms; extending from the bites of insects and the stings of bees to glanders and hydrophobia; from chronic and acute alcoholic intoxication to the injurious effects of spurred rye and the celebrated national sausage poison; from the vegetable alkaloids, including conia, nicotin, and picrotoxin, to the gases and the metals.

The chief aim of the author has evidently been to furnish a useful book, adapted to the every-day wants of the practitioner, and having for its basis the results of his own observation and experience. In his preface he acknowledges the difficulties incident to the undertaking, yet says he advances cheerfully to the task, believing the effort due to himself in order to substantiate doctrines long taught at the bedside, and to gratify his wish to assist in forming good practical physicians, which has been, ever since he first entered upon his career, his "chief desire—his firm and unalterable purpose." He has therefore tried to adapt his work to the latest attainments and the most advanced position of the science of which it treats. He has aimed to avoid, on the one hand, the vague generalities of those who do not write from actual observation, and, on the other, the mere compilation which results from the study alone of the writings of others. His descriptions of disease are clear, impressive, and faithful; the pathological anatomy is given briefly, yet plainly, and always with reference to the functional disturbances which occur in connection with it; he accords to every mode of investigating diseases or symptoms its just value, yet expresses regret at the tendency which is shown to a too exclusive use of physical means of diagnosis; he lays stress upon the relative worth of symptoms as occurring in different relations, is careful to notice the modifications which may occur in the forms and in the course of the same disease, while he places high value, and it can scarcely, we think, be too high, upon knowledge of the *natural history* of diseases—of the course they run when uninfluenced by remedies and uninterfered with by art. He considers the study of etiology as far more essential than formerly in regard to classification as well as to treatment; but "by etiology is not meant that vague and superficial definition with which, unfortunately, we have too long been content. Only well-founded and strongly-criticized facts, and particularly such as have been discovered by the keener and more penetrating modes of investigation, should find a place in special etiology. And here not only physical and chemical studies are of service, but experimental pathology, as carried on by Frerichs, Virchow, Stich, Tiersch, and others, is of the greatest service." In regard to therapeutics, after stating that he will take the most especial pains to present everything having reference to this branch of this subject, he says:—

> "The Nihilismus which first, thirty years ago, spread out from Paris as a reaction from the excesses of Broussais' doctrines, and from Kothen under the mystical and deceptive name of homœopathy, is approaching its end, as every exaggerated doctrine in our science is sure to do. How injurious the results of this nihilismus are I see every day in the hospital, when severe cases of disease treated only expectantly have dragged along through many weeks, and are finally brought dying into the wards; or in cases of commencing chronic inflammation yielding rapidly to energetic measures, while before, under an inert treatment, the symptoms had constantly increased in severity and kept the poor patient for many weeks unable to pursue his avocation. Happily, too, the old polypharmacy is abolished; an exuberant therapeia stands no more in need of this than does chemistry of alchemy. Simple and powerful methods of treatment furnish happy results, while there is also a series of diseases running a typical course, which are generally best treated expectantly, in which, however, a careful symptomatic therapeutics can render essential service to the patient."

In classification the work very much resembles Prof. Wood's *Practice.* Expressing frequently great admiration for our countryman, a personal friend, and evidently familiar with his writings, it must occur to any one examining this book that the similarity is too great to be accidental. However this may be, he has not presented his plan without deliberation and evident labour; he does not fail to confess the difficulties and embarrassments which attend this part of his work, or the unsatisfactory results obtained, arising from the great amount of unexplored territory yet belonging to the subject. The precise and well-defined classification of the natural sciences is the attainment desired, which is rendered impossible not only by the less well-defined lines dividing diseases, but by the necessity of considering the "unity of the organism" in disease—a point he is careful to impress in many relations; for him there is never a disease in the body without a body diseased. He alludes to the French school as too purely anatomical in its classification, thereby sacrificing breadth of view and scientific character. For his own country he claims the honour of giving the impulse to physiological medicine, which enters more deeply into the details of pathological processes and of molecular changes, and connects pathology with the general biological laws of the economy. He mentions Bernard, however, as one of the best examples of this school. But, he says:—

> "Let us not delude ourselves; we have only entered on the prosecution of our studies upon this plan, and from its comprehensiveness, its depth, and the inherent difficulties which attend it, a very long time will elapse before it is completed. The time has passed away, however, in which there can be schools and the doctrines of schools. The childish confidence in the infallibility of single great observers has given place to that manly earnestness which is far more concerned in the investigation of the nature of the occurrences than in commenting upon the works of predecessors. None the less honoured are the great inquirers of all times, but the truth is now esteemed more highly than the searcher after truth."

In treating of each disease, the author commences with a short historical sketch of the origin and progress of our knowledge in regard to it, a point of extreme interest to every real student of his profession, and in fact more valuable than interesting. He justly claims that by knowing what has already been done in the course of time, both by observation and comment, to establish a doctrine, we are restrained from exaggerations and false assumptions, and so are enabled to arrive at that calm decision and firm conviction without which it is impossible to be a good and successful practitioner of medicine.

The bibliography of the work is copious, and gives evidence of a full acquaintance and close examination of the writings of others, revealing the faithful and prolonged study which he has devoted to disease at the bedside and its effects in the dissecting room. Nor are his quotations limited to works of his own country and language; they extend from the ancient writers to the latest works from the press, and include not only the writings of French and British authors, but those of our own country as well, an occurrence we need scarcely say well worthy of notice, for, although English writers are beginning to do justice to our scientific labours, it is rare, indeed, that a continental author shows any acquaintance with American medical literature. The work of Wood upon *Practice* is frequently quoted, and the highest praise awarded to its author. In giving the history of diphtheria, he calls particular attention to the work of Samuel Bard, of New York, as preceding Bretonneau's, "as being, to a certain extent, the origin of modern works upon this subject." It is true his acquaintance with this work was made through a French translation (by Ruette, 1810), yet we are glad to see the honour accorded to our country. In treating of diseases of females, he quotes Dewees and Meigs, and in the notice of yellow fever, we find the names of Rush, Jackson, Dickson, and Mott, and reference to the *Philadelphia Journal of Medicine* as well as to this journal.

Particular attention is given by the author to the subject of hygiene and the prophylaxis of disease, also to the relations of the disease, where required, to surgery, and reference is made to surgical authorities upon the subject. Another feature worthy of mention is the consideration of diseases as occurring at different ages of life; all the more important diseases are treated of first as occurring in the adult, then as occurring in children, with the modifications of course and treatment, and again a chapter upon the same disease in the aged.

If now we were called upon to give briefly the most marked features or characteristics of the work and the author, they would be as follows: First, and most important, the solid foundation of personal observation upon which all statements and doctrines are founded. His experience, already alluded to, has been vast; and he makes the statement that the work is based upon six thousand written cases which he has collected within about twenty-five years. These, too, have been observed in all classes of society, and are drawn from hospital, dispensary, and private practice, for he justly claims that observations made only in the wards of an hospital do not meet the requirements of practical life. Second, great independence of judgment. It is of little consequence to him who supports this or that mode of treatment; a remedy having been found efficacious in a certain disease he administers it, and as a scientific empiricist, allows no questions of theory to trouble him. Thus, in regard to bleeding, he not only uses it, but in a class of patients in whom it is rarely recommended now; in giving the treatment of broncho-pneumonia in the old, he carefully warns against the fear of bleeding this class of patients, and relates that in one location he established himself in practice by the success which attended his treatment of pneumonia in aged persons by moderate bleedings, a measure which others were afraid to put in force. Third, the thorough acquaintance manifested with the whole range of medical literature. Fourth, great candour in fairly stating modes of treatment recommended by others, whether his experience has proved them to be the best or not.

To attempt an examination of a work so extensive as this would occupy far more space than we have at our disposal, while a critical comparison of its merits with all other works extant upon the subject would perhaps as far surpass our ability; we prefer, therefore, to select a few leading diseases, and confining our attention to them, give such an exposition of the author's style and treatment of his subject as shall enable our readers to estimate his merits, and so judge whether his acuteness of observation compares with the opportunity he has had for its exercise, and his judgment in choosing and adapting remedies to cases equals his learning and his candour.

We select for the first typhoid fever. Our author's classification of Fevers is into a group of malarial fevers containing intermittent and remittent; a group of the various forms of typhus—1. Abortive typhus; 2. Abdominal typhus; 3. Typhus anentericus (exanthematicus), and a group of "acute febrile diseases of miasmatic[1] origin allied to typhus," containing—1. Recurrent fever; 2. Bilious typhoid fever; 3. Yellow fever; 4. Plague. It may be well to state that by "bilious typhoid fever" the author does not intend any form of our well-known bilious fever, and the *typhoid condition* of this fever he carefully distinguishes, but a disease of epidemic nature, which prevails in Southern Europe and on the shores of the Mediterranean, and with which he has had very little personal acquaintance, his knowledge of it being derived from Griesinger, to whom he accords the praise of having written one of the best treatises on fever extant (vol. ii. of Virchow's *Specielle Pathologie und Therapie*). For the distinction and description of "abortive typhus," however, our author claims credit, believing it to be an important advance in our knowledge, and to have an important bearing upon our studies. He claims that the disease called by the Germans and French "mucous fever" (Schleimfieber, fièvre muquese), and what we should term a mild form of typhoid or enteric fever, is a distinct disease, which, on account of its brief course and favourable termination, should be separated from abdominal typhus and considered by itself. The influence of this view upon statistics will be seen at a glance; thus, of 800 cases of typhus observed by the author in Zurich alone, and he has seen the disease in Paris and Breslau, 170, or more than 20 per cent., were abortive typhus, and of these not one proved fatal. The influence of this view upon treatment is no less important, especially upon those plans of treating typhoid fever which are every now and then brought again before the profession by some enthusiast, the design of which is to cut short the disease in its early stages. Why talk of abortive methods of treatment, the author well asks, for a disease which in one-fifth of all the cases will terminate within a short period without any remedies whatever? He looks upon typhus as being, from its origin, either of the abortive or regular character, and resembling variola or cholera in this respect that during the same epidemic cases may be very severe or very mild independent of any effect of remedial measures. We confess we are in doubt as to the author having made out his case in favour of the new disease; he admits that it prevails at the same times and seasons and in company with typhoid fever—that it affects the same class of patients—that the prodroma and the symptoms are almost identical; indeed he confesses that the abortive typhus sometimes runs into the abdominal or regular form, and that it is "often impossible to draw a well-defined boundary line between the two"! But again, in treating of abdominal typhus, he says, "that an attack of abortive typhus does not afterwards protect from this disease I have certainly seen in a series of cases." Meantime the influence of this separation of the milder from the more severe disease upon the statistics of the mortality observed by the author in typhoid fever, should be kept in mind.

---

[1] Not used in the limited sense of marshy miasm, synonymous with malaria, but implying any emanation.

In opening the subject of typhus, he congratulates his readers upon the recent escape made from confusion upon this subject; the *typhoid condition* of acute tuberculosis, of pyæmia, uræmia, and other diseases is no longer confounded with typhus or with typhoid fever; neither is there any longer a cerebral typhus, or a different form of disease recognized according as head, chest, or abdominal symptoms predominate; the strife about typhus or typhoid fevers is also so far allayed that "all the best pathologists recognize at present the ileo-typhus, [typhoid, enteric fever,] and the exanthematic [or true] typhus without enteric localization, as indeed allied, but yet different diseases, between which, however, no sharply defined entological boundary line exists."

Upon this interesting point, the identity or non-identity of typhus and typhoid fevers, he also says that the profession has been misled by the frequent occurrence of wide-spread epidemics of typhus, while the absence of these for some time past has justified the belief in the almost exclusive existence of typhoid fever, "and while formerly the identity of the two was too confidently maintained, the tendency now is to divide them too markedly. We shall probably arrive nearest the truth when we admit great analogy between the two forms with well-marked differences, not maintaining their identity, but at the same time not seeking to draw between them a too well-defined and constant boundary line."

Typhoid fever, or, as he prefers to term it, "abdominal typhus," he defines as "an acute febrile disease, accompanied by deep prostration of the nervous system, disturbance of the functions of the alimentary canal, generally diarrhœa and ileo-cæcal pain, with swelling of the spleen, and roseola. Anatomically it is characterized by swelling and ulceration of the intestinal glands, enlargement of the mesenteric glands and of the spleen, and by a profound alteration in the quality of the blood, recognizable by its external characters, but in its essential nature not yet fully understood." Typhus fever he describes as "an acute febrile disease, very contagious, characterized by severe general symptoms, especially on the part of the nervous system, and by a copious exanthematic eruption, but in which the clinical and anatomical signs of enteric complication are absent."

Typhoid fever seems to be one of the diseases most frequently met with in Europe. The author estimates that in the large cities it makes up about one-fourth of all the acute diseases, while in the country it frequently prevails as an epidemic. His experience with it is stated as about eleven hundred cases, attended at Zurich, previous to 1858, and of more than four hundred of these he had written reports. Besides these cases he has observed and treated the disease in other parts of Switzerland, in Paris, and in Breslau.

Upon the pathological anatomy of the disease, the author is full and precise, and reference is made to his great work for the illustrations of the lesions. Into the particulars of this subject, we will not at present follow him, but quote below his remarks upon the condition of the blood, which are valuable, and show his appreciation of the anatomical and pathological schools of pathology. He introduces this extract with the statement that while few diseases have been of late so laboriously and patiently investigated in regard to this point, yet there are also few in which so much still remains to be done, and he is convinced that it is impossible to arrive at satisfactory pathological conclusions, from anatomical investigation alone.

"By far the most important but least known pathological changes of abdominal typhus, are *those of the blood. When taken from a vein during life*, we find a soft clot, which is but seldom covered with a thin, buffy coat, similar to congealed fat, and the longer the disease has lasted the smaller will be the relative proportion of clot, on account of the increased consumption of the red corpuscles. The quantity of fibrin is either decreased or normal; the colourless corpuscles are said to be more numerous, but my own microscopic researches on the blood have not led me to any definite results. The serum is lessened with every day's duration of the disease, and, indeed, in proportion to the amount of intestinal affection and of evacuation through the enteric mucous membrane. Salts and extractive matters are rather relatively increased than absolutely diminished in quantity. The imbibition of the endocardium, and of the larger vessels, the softness of the clot, with but small quantity of soft and yellow fibrin, indicate plainly most important changes. When we further consider, that a pathogenetic miasmatic agent is acting from without, before the stage of localization has been reached—that according to the investigations of Frerichs and of the analyses of Neukom made in my clinic, leucine and tyrocine, products of the fermentation of the albuminoid bodies, are found in the liver, spleen, mesenteric glands, and even in the urine—that the increased amount of urea in this secretion indicates increased waste of the proteinaceous compounds—that decrease of its chloride of soda and increase of its ammonia, and the continual loss of albuminates by the alvine evacuations, could not certainly take place without the deepest changes in the quality of the blood—we cannot escape the conviction that wholly different modifications must have taken place, than such as can be expressed by the consideration alone of the coagulable, the cellular, the chemical, or the serous constituents of the blood. Farther investigation, however, brings us directly to complex problems, for it is not merely analyses of the blood at different periods of the disease which are needed, but the primitive alterations must be distinguished from the secondary ones, the result of draining of fluids, of the influence of zymosis, complications, consequences, &c. When now we call to mind the fact that our knowledge in regard to the normal constitution of the blood, and especially of the origin and changes of its organizable constituents, is extremely imperfect, our skepticism as to the assumptions of anatomy and of chemistry is certainly justified. It appears to me always judicious to place beside our positive acquirements our great positive ignorance."

The subject of symptomatology follows pathological anatomy, and in this is first given a general description of the disease from its initial stage to the termination. Then are taken up the most important symptoms *seriatim*, and each is examined at length. From these we select a few points of more especial interest:—

"Towards the end of the first week, sometimes in the second, *roseola* makes its appearance. The spots are of a pale red colour, about the size of a lentil, but little elevated above the surface, disappearing upon pressure. They are first seen on the lower part of the chest, and on the abdomen; afterwards they spread over the thorax, abdomen, and back. They may be present in but limited number, or may be very numerous. I have often seen them of late years so profuse as to resemble an eruption of measles. I have never seen them upon the face, and only exceptionally on the extremities. * * * They are more likely to be wanting in persons of dark-coloured skin than in those of clear and delicate complexion. In the year 1857 particularly, I observed as profuse an eruption in ileo-typhus as is ever seen in the exanthematic typhus, which once more speaks against a too rigid separation of the two diseases. In the not numerous cases of relapse, in the course of the same attack, I have many times seen the second roseola far more intense than the first."

"In the beginning of typhus the *temperature* is always increased. If we must take the mean temperature of middle age (20–40 years) at 37° centigrade the increase will range from 0.5–2.5° in cases of medium, to 2.5°–4° or even 4.5° in cases of greater intensity. An elevation of temperature above 41.5° has not been observed. This abnormal height of temperature continues a definite time, so that in the remission it never falls below 38° or 38.5°; then it sinks, either suddenly in the course of twenty-four hours, or in the remission to the normal point, or below it, and in the evacuations seldom again goes above 38°–38.5°. * * * The first continuous and increasing moderation of temperature corresponds to the so-called critical occurrences, increase of perspiration and of urine, the period of rapid and definite decrease of all the symptoms, and which leads to convalescence, while complications and consecutive diseases, as well as great irregularities as to course, have as a consequence an increase of the temperature. A rapid decrease of temperature is often occasioned by intestinal and other hemorrhage. A rapid and suddenly-commencing increase of temperature during a late stage of the complaint often indicates the beginning of a severe consecutive disease. Therefore, accurate observations of the temperature are of great prognostic value, and even in private practice the careful physician should carry with him a thermometer as well as a lancet and a stethoscope. * * * I have not been able to detect any definite critical days in typhus."

"Having learned the value of the thermometer, we may call the careful observation of the *pulse* our barometer in prognosis, and with every year I estimate more and more highly the doctrine of the pulse as it was taught by the older physicians. As a general rule the pulse is frequent from the beginning, and its rate is still farther increased by exertion, or the upright position. It corresponds generally with the temperature; in middle age at the commencement ranges from 92–96–104–116–120 in the minute; in children it is more frequent the younger they are, and I have seen it in patients from three to five years of age as high as 140 or 150 without unfavourable prognostic signification. In adults a pulse continuing at and above 120 from the beginning is of serious import. Between morning and evening there is a difference of eight to twelve beats, or even more. Although in general the frequency of the pulse follows the temperature, yet I have many times seen a burning hot skin with only moderate increase of pulse-rate. With diminution of temperature, either suddenly or gradually, the pulse declines also, yet very frequently during convalescence, a pulse of 100–120 is seen without proportional increase of temperature, and this not only in weak and greatly reduced patients, but in stronger ones. If, in the second period, the pulse reaches 128–140, or above that, and so continues several days, the case will terminate fatally as a general rule.

"The quality of the pulse is no less important. Only immediately in the beginning is it really full and strong, then it is full and soft, and after five or eight days it is less full, and easily compressible. This peculiar weakness of the pulse becomes more and more marked towards the end of the first, and in the course of the second period; indeed, there is something peculiar to the experienced physician about the pulse of typhus which is not easily describable. In the further course of the disease it becomes more or less undulating, and from this condition to the dicrotous pulse, it passes through all variations. The more compressible, the weaker, the smaller the pulse, the severer is the case; generally, also, such a pulse is frequent, but I have observed exceptions to this. A bad quality of the pulse is that in which the pulsations can no longer be distinguished, and this, as well as irregular contractions of the arteries, are so much the worse, since it is not here merely a question of weakness of the heart, but of fatty infiltration of its muscular structure."

"The disturbances of the intestinal functions manifest great variety, as has already been seen by the description of the *diarrhœa*. Above all, cases are not infrequent in which there is constipation or only temporary diarrhœa, even too in cases which terminate fatally and in which the evidences of intense intestinal disease are found. Although in many cases the diarrhœa is present from the beginning, yet during the first four or five days there is rather constipation. The diarrhœa begins generally in the second half of the first week—sometimes only about the eighth or tenth day. As a rule, there are from two to four liquid stools in twenty-four hours, not seldom the patient will have many more, even to six or eight in the same period of time; only exceptionally are the passages accompanied by colic pains; nor does the diarrhœa maintain any direct relation to the ileo-cæcal pain, or to the meteorism of the abdomen, which is often very considerable. If, after it has ceased, it commences again with considerable intensity and obstinacy, it indicates some consecutive disease, as diphtheritic inflammation of the large intestines, or persistent catarrh of the small intestines with lack of reparation. * * * * After small and large doses of calomel the stools of typhus become green. This green colour does not depend upon the mechanical mixture of sulphuret of mercury, which is found at the bottom of the vessel after large doses of this medicine, but depends upon a peculiar transformation of the brown pigment of the bile into green, since brown bile changes to emerald green when rubbed with a small quantity of calomel. The examination of the stools gives nothing definite as to an increase of biliary secretion. Albumen is only found in the evacuations of typhus when blood is present."

"Among the worst complications of typhus must be reckoned *perforation* of the intestines, which, according to Heschl, favours the fatal termination in about four to five per cent., a proportion which appears to me too high in reference to the total mortality, since with us, at the highest, only one to two per cent. die of perforation. But if we compare the frequency of perforation with the fatal cases of typhus in general this proportion is below the truth. I have found, for instance, in one hundred *post-mortem* examinations of ileo-typhus no less than nine cases in which perforation had taken place, and these were proportionally divided among my cases at Paris and Zurich, so that 8 to 10 per cent. of deaths are caused by perforation. * * * Generally it occasions a rapidly fatal peritonitis. The patient experiences a sensation of internal tearing. Immediately there are developed intense abdominal pain with great distension, the most extreme sensibility of the abdomen to pressure, nausea, vomiting of greenish fluid, constipation, a small, thready, rapid pulse, a pointed tongue, and these symptoms usually terminate in death within twelve or thirty-six hours. These symptoms sometimes occur entirely unexpectedly, even in apparently mild cases in which the patient scarcely keeps his bed, and which have been therefore called ambulatory typhus. To this typical form must be added, however, a more lingering kind of perforative peritonitis. The beginning may be far less sudden, which may depend upon the adhesions of which I have met with examples, or upon the deep stupor of the patient. I have certainly seen the perforative peritonitis last from ten to fourteen days in several cases, and since in these cases several perforations were found, the last which occurred might have decided the fatal termination. Once I found the bowel full of holes from perforations. The gall-bladder may also suffer this accident and occasion fatal peritonitis."

In the eighteen pages occupied with the subject of symptomatology there is much besides these extracts which is well worthy of presentation, but we are compelled to deny ourselves the gratification of drawing further from the rich stores of the author's experience, and pass on to the course of the disease, its different forms and complications. Much of this, too, we should like to give in full, but must content ourselves with indicating very briefly the varieties of the disease he recognizes, and which, he says, run into each other. They are: 1, an almost *latent* form, sometimes very deceptive, patients being brought into the hospital even from their work dying from perforation; 2, a *versatile* form; very changeable; *syn.* febris nervosa versatilis Frankii; 3, a *mild* but *regular* form; 4, the *cerebral* typhus, in which the head symptoms predominate, but which must not be considered as depending upon a local inflammation; 5, an *adynamic* form, with great prostration of power, etc.; 6, a form in which the chest symptoms predominate, the so-called *broncho*-typhus; 7, in which the abdominal symptoms predominate, which may be appropriately termed the *enteric* form, more frequent in children; 8, the *hemorrhagic-septic* variety, formerly called febris nervosa putrida or maligna.

His statistics in regard to the *mortality* of typhus are valuable; he has been careful in the investigation of this point in the practice of others, esteeming it of great importance, and has his own large experience to draw from; we therefore give it entire:—

> "The mortality is subject to great variations according to the epidemic, season, and locality. Above all, it is important in considering this point to reject those inexact statistics not infrequently seen in the too favourable reports of vain-glorious country physicians. I have seen all proportions of mortality in different countries, from thirty down to twelve per cent. The greatest mortality was about one-fourth and took place in Chomel's wards of the Hôtel Dieu, during the years 1834–5. The strictly collected statistics of Bouillaud, in 1835. give one-sixth fatal cases. In the year 1835, Piedagnel published statistics of the treatment with cathartics, which showed a loss of one patient in seven; in the same year the mortality at La Pitié, under the expectant treatment by Louis, was one in nine; in the mean time, I recollect very distinctly of seeing at that time many mild and abortive cases in La Pitié, while in the Hôtel Dieu and at La Charité almost all were severe cases. In the former the treatment consisted in the administration of chlorine and the chlorates, while in the latter of full bleedings. In the severe epidemic which I observed in Unterwallis, in the year 1839, the mortality upon the St. Bernard was one-third, while in the Salvent valley it amounted to scarcely one-tenth. My observations at Zurich, extending over a period of five years, was of particular interest in reference to this point. During this time I had under my care 1044 cases of typhus and abortive typhus (549 men and 495 women): of these 226 terminated fatally—about 11 per cent. Now if we deduct the abortive cases there remain 799, 419 males, 380 females, with a mortality of 126, thus about 15.7 per cent., not quite one-seventh, but which is not equally divided between the sexes. There are, for instance, more than 3 per cent. less of fatal cases among the males than among the females. This agrees with my very extensive observation generally in Zurich, that females do not withstand severe acute diseases so well as males, and I observed the same thing there in regard to smallpox and cholera. The general proportion of our statistics is so much the more favourable since the abortive cases are excluded, while in others they are termed mild cases and included; and again, the number of severe cases was large, many of the patients having been brought into the hospital near their end from perforation, etc., and four cases of death occurred from cholera."

We pass over all intervening points, and come to the subject of treatment, which he introduces with the following admirable paragraph; we transcribe it, because it gives a good general idea of his opinions, and illustrates his candour and his judgment.

> "Coming now to the treatment of typhus, we find in our science a great number of methods recommended, and some of them quite celebrated. Although we shall hereafter show that, after many trials, we have not been able to adopt any especial method of treating this disease, yet experience and the study of the best works upon the subject have brought us to the conviction that we should not allow ourselves to be too exclusive upon any point. When we see, for example, that in the therapeiæ of the best German, French, English, and American authors there are not only considerable and important discrepancies as to detail, but fundamental differences, we cannot content ourselves with the indefinite saying that of the many roads all lead to Rome at last. When we read carefully the description of different epidemics, and study their general picture of the disease, we find that considerable modifications of treatment were necessary, not merely according to the doctrines of schools, but according to the seasons, countries, and localities. But we also find that this general study and comparison not merely show to the physician these varieties, but they help him to the

knowledge of many means and methods which, judiciously managed, multiply his resources, heighten his efficiency, and increase his usefulness. This is not an eclecticism which forms of many-coloured and many-shaped pieces brought from every direction, a variegated and discordant whole, but we arrive thus at that profundity of judgment which enables us to weigh and estimate the various and earnest efforts of the best and most experienced members of our profession, even as the truly great tactician does not rely alone upon the inspiration of the moment, but finds in a thorough study of the masters of his art in antiquity, in the Middle Ages, and in modern times, rich resources for the most difficult positions. Digressions of this kind will perhaps excite in the minds of many the question whether they should find a place in the narrow limits of a hand-book. But I hold it essential, in theoretical instruction as well as in the clinic by the bedside of the sick, to lay down for the student and the young practitioner, those sound and tried principles which can alone give light, clearness, and connection to the numerous varieties of detail which are inseparable from our art."

The subject of treatment is opened with a critical examination of the different methods which have been proposed in this disease. First are the plans for cutting it short in the beginning, the abortive treatment; his views upon this every one will readily anticipate. What reliance can be placed upon remedies cutting short a disease which in one-fifth of all the cases terminates spontaneously within a brief period? He thinks that by the establishment of the existence of abortive typhus the doctrine of abortive treatment is shaken to its foundations. However, he states that the measures relied upon to produce this effect—emetics and calomel in large doses—have no influence upon the course of abortive typhus. The former of these he has tried many times, both by ipecac and a mixture of this with antimony; but the conviction was forced upon his mind that they were useless; also many cases were brought into the hospital in which emetics had been tried by others, but without decided result. When the emetics used are antimonials, they not unfrequently increase the intestinal troubles, but he thinks it may be said of this plan generally that it is harmless.

The treatment with calomel is one which has received the countenance of eminent authority in Germany; it was the favourite plan of the author's preceptor, Schönlein. The medicine is to be given in full doses—to adults, gr. vj–x, to children, gr. iij–v—three times daily, and this plan must not, therefore, be confounded with a milder mercurial course, not *abortive* in its intention, to be alluded to farther hereafter. To this plan the author has the same plea as to the other, and which he deems unanswerable —his doctrine of *abortive typhus*. It is based on statistics, very favourable statistics, too,[1] but in compiling these no account was taken of the large number of cases which would have terminated abortively without the remedy, therefore they are valueless, and the doctrine is left without support.

Passing on to consider special modes of treating typhus (*not* abortive measures), he begins with the antiphlogistic plan, which was taught and practised by Broussais and Bouillaud, and Forget of Strasburg, and in a modified degree by Chomel and Louis. There have ever been fanatical devotees of the lancet, our author tells us, and it is not surprising, therefore, that men have been found to take from five to eight pounds of blood from patients with typhoid fever, by rapidly repeated venesections and local blood-lettings. In order to satisfy himself of the real value of this mode of treatment, the author states that in 1835 he collected a series of clinical reports of cases in Bouillaud's wards, and convinced himself that "it is not so dangerous as at first sight it might appear to be; the mortality ranged about one-sixth; nevertheless the patients were generally very much reduced, and convalescence was extremely prolonged." His own opinion is that venesection in typhoid fever, as a general rule, is neither necessary nor useful. In cases attended with active congestion of the lungs or brain, or in some other exceptional cases, he would take blood by moderate general bleeding or by local measures.

---

[1] For those of Tauflieb, which are the most extensive, see Stillé's Therapeutics and Materia Medica, vol. ii. pp. 812, 813.

The treatment by *mercurials in small or moderate doses* comes next in order, and is quite a favourite plan with the author. As the foundation or basis of treatment (Grundbehandlung), he looks upon it as one of the best.

> "I have used it extensively in Paris and in Switzerland, and the cases so treated seemed to me generally to run their course mildly and favourably. I resort to it especially in children. I administer simply one grain of calomel with sugar, morning and evening, from the beginning of the disease. This method is not new, and has already been used by so many physicians, that we cannot but wonder that a man so celebrated as Serres should claim before the Paris Institute, in 1847, that he had discovered in mercury a specific remedy for typhus, as it acted as such upon the intestinal eruption, which was similar to variola; wherein he makes a double error, since the analogy of the typhoid intestinal affections to smallpox, and the specific action of mercury upon it are both equally hypothetical. Serres particularly recommended, in addition to inunctions with the mercurial ointment, the hydrargyrum sulph. nig., gr. x–℈j daily, in several divided doses. Becquerel has also spoken very favourably of this method. The Philadelphia physician, Wood, is unquestionably one of the most judicious supporters of the mercurial plan."

Here follows Wood's plan in full, the circumstances and period of disease in which it is resorted to, with his formula. To this he adds "it should, however, be observed, that according to the description of the author, the inflammatory character of the disease appears to be more marked than with us."

The Italian contra-stimulating plan receives a passing notice, and the next in order is the *antiseptic* plan. Throughout the whole history of typhus, our author says, there is ever present the idea of a putrescence or putrefying agent, which is to be neutralized or destroyed, a doctrine which, whatever modicum of truth it may possess, he thinks has sadly retarded our progress in knowledge of the disease. This plan consists in administering chlorine water freely, and in regard to its value the profession in Germany seems very much divided. Taking the reports of its friends, our author concludes that it is more febrifuge than antiseptic in its operation. His own observation is that chlorine water is neither particularly beneficial nor injurious. He mentions the fact that some French physicians are partial to the use of the chlorates, but gives us no opinion of their value.

The treatment by *tonics*, combined with acids and stimulants, is one which has enjoyed the favour of many learned men. However well adapted to single exceptional cases, as a general treatment, or as the base of operations, to use a military phrase, he rejects it entirely. The clinical reports of some of its friends, he thinks extremely unfortunate for it—in almost half the cases there is a *post-mortem!* We regret exceedingly that the doctrines of Todd do not here receive a more particular notice.

The author gives, as supporters of the treatment by *cathartics*, the names of Tissot, Stoll, Pringle, Huxham, and Baglivi, and some of the best Parisian physicians, among the more modern ones, Honoré, Beau, Piedagnel, Jadioux, Andral, and Louis, with others; an array of names which should certainly carry weight in a question of therapeutics. We limit ourselves to his own experience with the plan :—

> "I have experimented with this plan a good deal, and have been generally satisfied with the results. I prescribed every day, or every other day, a glass of Seidlitz water or of the solution of citrate of magnesia, to be taken in the morning fasting; or I order morning and evening from one to two grains of calomel. In general the diarrhœa is scarcely at all increased; if this should be the case, the treatment is discontinued. However injurious energetic cathartics, such as the neutral salts in large doses, drastics, etc., may be in a disease in which the bowels are so deeply implicated, mild and gentle purgatives form, nevertheless, a good method of treatment, which in France gave an average mortality of one-seventh. Since, however, my results in Zurich with an expectant-symptomatic treatment were rather more favourable, while the abortive cases were excluded from my statistics, I see no reason to prefer it. Meantime I repeat that, particularly in typhus, different methods of treatment may be necessary, according to the circumstances, and, therefore, I look upon the cathartic treatment as the best method of an active character."

The treatment with acetate of lead, of Dr. Atlee, of Lancaster, as given by Wood, receives mention, and this concludes the examination of special plans of treatment.

The nature of his own plan, which occupies eight or nine pages of the book, will be gathered from the term "expectant-symptomatic," which he has already applied to it. He lays down carefully the hygienic and dietetic management of the patient, and with this is content, so long as the case is going on regularly and mildly, prescribing nothing more than an emulsion of gum for appearance sake. If, however, special symptoms arise of any severity, or of threatening character, he meets them according to their nature, and inculcates the most careful observation of the patient, in anticipation of their occurrence.

> "In this careful oversight and watching, the physician resembles the shepherd, who does not interfere with his flock so long as they do not stray out of their pasture, but who immediately brings back the stragglers from every direction; and here, too, is the old maxim *obsta principiis* of the greatest importance."

After laying out the treatment in general upon these principles, the individual symptoms of the disease are then taken up in detail, and the appropriate remedies given; of these we can only mention such as seem of especial interest. In the delirium, he is partial to the cold douche to the head, the patient being in a warm sitz-bath, the remedy to be repeated several times daily, and continued some minutes. When the time for tonics has arrived, the preparations of bark "occupy the first rank, and to the use of these in typhus, physicians have returned again and again, for centuries." To these succeeds wine, and in case the best quality of this cannot be procured, rum is spoken of as a substitute, but brandy, so generally used with us, he does not mention. Equal in rank with wine he places coffee, "the tonic and stimulating properties of which are not, in general, sufficiently esteemed in therapeutics." * * "Under the same conditions which call for tonics and stimulants the oil of turpentine is especially recommended by Wood, upon whose judgment I place a very high estimate. * * * It is recommended after an experience of thirty years, and Wood, whom I know personally, belongs unquestionably to the most conscientious and best physicians of our time." In the hemorrhagic and septic forms of the disease he recommends the preparations of bark with the mineral acids, and in collapse the various ethers. Camphor, musk, arnica, and serpentaria he has found of very little use, except the former, sometimes in children. For abdominal pain and tenderness, he prescribes from six to eight leeches, or, in case of local peritonitis mercurial inunction, or, if no inflammatory symptoms are present, sedative liniments with warm fomentations, or the "very comforting but too much neglected" lukewarm baths. With the diarrhœa he does not interfere if it does not exceed three or four evacuations in twenty-four hours; when necessary to treat it, he knows no better remedy than the nitrate of silver—from two to four pills daily, each containing gr. ss; if still unchecked, he adds an enema of gr. iij–iv of the salt, with gtt xij–xv of laudanum in four ounces of water. Next in value stands acetate of lead and then alum; the latter he found especially beneficial in an epidemic, in which nitrate of silver proved useless. These are, of course, but a few of the points; much of the remainder, as well as the general course of management, is in accordance with the treatment of judicious physicians everywhere, and many details are of minor importance; all of it bears the marks of the experienced and conscientious observer.

> "In concluding what I have to say upon the symptomatic treatment, I cheerfully acknowledge the great imperfection of my labours, yet I may hope, at least, to have shown that only by a careful observation, and just estimate of all the occurrences of abdominal typhus, can the majority of cases be conducted to a favourable termination. But we are not merely concerned with the rescue of our patients from death; it is our duty to cure them as rapidly and as perfectly as possible, and those statistics which only include the proportionate mortality, are in the highest degree unsatisfactory."

A chapter follows upon typhus in children, and then the true typhus (anentericus, exanthematicus) is taken up, and considered in full upon every point. Into an examination of this we shall not go, because the author confesses that his personal observation of it has been limited, and that he derives his knowledge of the disease mostly from others, and states that the best general descriptions of it with which he is acquainted are those of Wood and Griesinger.

We should be glad to enter at length upon the subject of *pneumonia* as given in this work, because it is a disease in regard to which the author has much to tell us from his own experience, and because of its importance, and of the interest which attaches to it as the chosen ground of contest between the advocates of widely different modes of treatment. We can do no more, however, than briefly touch upon a few of the most interesting points.

In frequency, we are told, this disease stands next to typhus; according to Vienna statistics, it forms three per cent. of all diseases, and 3.8 per cent. of all deaths, children excluded. According to the author's statistics, it forms something over four per cent. of all diseases, but only ¾ of one per cent. of the total mortality.

The author's statistics are given as 222 cases, seen and recorded, from 1853 to 1858. Besides these cases, he has observed the disease during twenty years of private practice previously, and in a large field of public and private practice since.

He lays great stress upon distinguishing between different *forms* of the disease, and this in every respect; he considers separately the pneumonia of children and of the aged, and it must be understood that these are not included in that portion of the work under consideration; idiopathic, inflammatory pneumonia is taken as the type, and to this we confine our remarks; as variations from this, he recognizes, besides some minor departures from the standard in regard to course, bilious pneumonia, then the typhoid form, which may derive its character either from epidemic influence or from the constitution of the patient; then intermittent, or as he thinks it should be, remittent pneumonia; and, lastly, the secondary form, a recognition of which in regard to progress and treatment is of the utmost importance.

As to the etiological relation between pneumonia and phthisis he says:—

> "Whether pneumonia develops tuberculization in cases where there is predisposition thereto, is possible, even probable, but not proved. When we see upon how weak a foundation the catarrhal or inflammatory origin of phthisis rests, we cannot but be astonished to hear this entirely unproved doctrine repeated from so many sides in an age which lays so much claim to precision as does ours."

The influence of sex upon the occurrence of the disease is surprising; of his 222 recorded cases 155 were males and 67 females. This preponderance of pneumonia in the male sex would seem to find its explanation in the different nature of the occupation of the two sexes; thus in the males only one-sixth of the cases occurred in those leading sedentary lives within doors; while again in one year the proportion was changed, there having been 19 cases of the disease in males and 25 in females; this was a year during which a large force of female labourers were at work building a railroad in the vicinity. From these and other facts he is led to dissent from Grisolle, who imputes but little influence to cold as a cause of pneumonia; the author thinks that a succession of exposures frequently perturbating the functions of the skin as important an influence as any single decided operation of this cause, which he admits cannot often be established.

In reference to the *mortality*, it must be remembered that broncho-pneumonia and the disease in children and old persons are not included in the list. Of the 222 cases observed from 1853 to 1857, thirty-two proved fatal; from this he claims a deduction of twenty-one, seventeen because death took place on the day of entrance into the hospital or on the following day, and four because of complication with other diseases, viz., one from delirium tremens, one from empyema, one from suppuration of the thyroid gland, death at the end of three months, and one from cerebro-spinal meningitis.

> "Deducting now these 21 cases there remain 201, of which 11 were fatal without complication, and having been regularly treated in the hospital; this gives the extremely favourable proportion of five per cent. for the mortality of genuine idiopathic pneumonia. According to the incompletely analyzed statistics of 1858–9, the result is somewhat more unfavourable—about six per cent. Of the 11 fatal cases no less than six were double pneumonia, and as we treated only 22 cases of double pneumonia during the five years, this gives the enormous mortality of twenty-seven per cent., while for the simple form it sinks below three per cent. * * * Of the 222 cases there were 20 fatal cases among 155 males, thus over one-eighth, almost 13 per cent., and 12 fatal cases among 67 females, thus two-elevenths, or almost 18 per cent., which shows the far greater danger of the disease to the female sex."

As introductory to the subject of *treatment* the historical sketch of the disease is interesting. By all the older physicians, as Huxham, Stoll, Frank, Richter, and others, other inflammations of the chest were confounded with pneumonia to such an extent as to render their observations valueless. The real history of the disease begins with Laennec, and besides the discovery of auscultation, which made his name immortal, he contributed much to our knowledge of pneumonia by anatomical researches and the establishment of sound therapeutical principles. Andral followed Laennec in like spirit; then came Bouillaud, who carried the antiphlogistic treatment to excess; the reaction from copious and repeated venesection found its personality in Louis, and, as usual, the reaction passed to the opposite extreme, as he denied all benefit from blood-letting; in the recent scepticism of the Vienna school in regard to this remedy in pneumonia our author finds but a repetition of the views of Louis. Among the later writers on the disease he especially mentions Chomel, Stokes, and Walshe, while Grisolle's monograph is ranked as by far the best. Great credit is given to Skoda for advancing the physical diagnosis, to Rilliet and Barthez for promoting the knowledge of the disease in children, and to Gillette and Durand-Fardel in old age. Dietl, he says, has of late renewed the old question as to whether venesection is of service in pneumonia, and although he has found many adherents, "at present all the best pathologists are agreed as to the value of energetic treatment in the idiopathic pneumonia of persons of good strength and not addicted to strong drink." The treatises of Wunderlich and of Magnus Huss are particularly mentioned as complete expositions of our knowledge upon the subject.

In considering the mortality of the disease, the author lays great stress upon proper treatment, as one of the most important influences not only upon the actual number of deaths, but upon the time during which the patient is laid up with it, and he opens this subject with the following remarks:—

> "Several times already we have mentioned the strife which arose concerning the proper treatment of pneumonia consequent upon the teachings of Louis in regard to the usefulness of venesection. Definite doctrines are the more necessary here to the young physician, since it not only concerns the treatment of the disease which, next to typhus, occurs the most frequently, but it furnishes us one of the knotty points of therapeutical doctrine, upon the one side the contest between nihilismus and rationalism, upon the other experience and truthful observation of nature. I do not hesitate to recommend to the young practitioner those methods of treatment whose safety and usefulness are beyond all doubt. At the same time, it should not be forgotten that for pneumonia there is by no means any specific treatment, as well as that under this name may be placed very various pathological conditions; that according to the age, to the constitution of the patient, according to the character and form of the disease, according to the former condition of the health, to the social and physical surroundings, to its primary or secondary origin, great variations may be observed which must necessarily be taken into consideration when directing the treatment; and to see the profession divide itself into two parties, one of which always treats the disease with and the other without bloodletting, is as unreasonable as what I saw in Paris when a student, every case of cataract depressed at the Hôtel Dieu by Dupuytren, and every case extracted at La Charité by Roux."

After stating that there is a class of cases which are very mild, require little treatment, and may well be left almost alone to nature, he continues upon the general character of the treatment:—

> "In individuals extremely reduced, in typhoid pneumonia, with weak, easily compressible pulse, when there is considerable depression, general bloodletting should be omitted. Generally, however, in cases of genuine pneumonia coming on in persons of good constitution, free from the influence of want, malaria, or alcoholic liquors, a moderate antiphlogistic treatment is by far the best.

Grisolle, whose work on the disease will long remain the best, expresses himself to the effect that the expectant treatment, even in mild cases which always recover without aid, is not without disadvantages; while in every case of primitive pneumonia of some intensity a much more energetic treatment is indicated than would appear necessary from the first glance at the general and local symptoms. Yet Grisolle lays down about the same contra-indications to bloodletting as those we have already given, although generally he goes too far. Wunderlich states his experience with venesection to be that it shortens the duration of the disease in proportion to the early period at which it is applied, that by it the critical processes are rendered more perfect, and that in almost all cases it occasions a decided moderation of symptoms, lowers the pulse, and lessens the temperature of the skin, and so shortens the course of the disease; he even maintains that a fatal termination is often directly prevented by this remedy. In a more recent work, Wunderlich has shown that in St. Jacob's Hospital, at Leipsic, the mortality in pneumonia treated by venesection amounted to 6.38 per cent.; those dying when brought in being deducted; while the mortality among those treated without this measure, and those who had suffered no spontaneous loss of blood, amounted to 17.10 per cent. This is a decided difference, and agrees too with our results at Zurich; we have shown above that in genuine pneumonia treated wholly in the hospital our loss averaged only a little over five per cent. I have compared many statistics of pneumonia treated expectantly, and find that in general the proportions are far less favourable than under a more active treatment."

In closing this portion of the subject, however, he says that the decision of such an eminent observer and physician as Huss, of Sweden, in favour of the expectant treatment of pneumonia must be considered of the utmost significance.

Having given the hygienic measures necessary for a patient suffering with this disease, he proceeds to lay down his own plan of treatment, which brings up again the remedy upon which so much has already been said. He uses it in moderation, to avoid the excess of individual French and English physicians; a single bleeding of ℥xij–xvj as early as possible; yet he does not hesitate to employ it even if six, eight, or ten days have passed, the other conditions being favourable, and he quotes Peter Frank to sustain him in the statement that it is not alone in the beginning of pneumonia that venesection is beneficial. Occasionally he finds a case requiring repetition of the measure, but finds the indication for this not in the buffy coat of the blood, but in the increasing dyspnœa and fever, in a rapidly advancing inflammation, or a plethoric condition of the patient. The general bloodletting he follows up with wet cupping, or uses it instead in some cases where the more severe measure is not necessary, and inunction with mercurial ointment is recommended afterwards.

"According to the observation of my assistant, Dr. Jenni, made in my Zurich clinic, moderation of the temperature, lessening of the fever, and promotion of the crises, cannot be denied for venesection in pneumonia."

Next to bloodletting as a remedy, he ranks tartar emetic, and in this is supported by Laennec, Louis, Andral, Grisolle, Wunderlich, Huss, and others. He uses it alone is some cases, yet finds from a combination of the two better results than from either alone. He prefers the simple solution to any other form, giving about six grains during twenty-four hours in divided doses. He esteems the evacuations by vomiting or purging, which the medicine sometimes produces, neither necessary nor injurious, "and finds no very positive difference in the results of the cases in which tolerance existed from the first, or was only established after evacuative operation."

This he follows with muriate of ammonia, advises the use of large blisters, and lays down other measures not differing from those ordinarily used.

The treatment of typhoid pneumonia is then given, and consists of, briefly, emetics, cupping, large blisters, and tartar emetic in combination with extract of cinchona. He also gives much prominence to the plan of Gordon, of Dublin, of treating this form of the disease with large doses of quinia. Secondary pneumonia is duly considered, and he closes with a mention of some special plans which have here and there been advocated, as the brandy treatment of Todd, digitalis in large doses by Traube, corrosive sublimate, chloroform inhalations, etc.; some of these, he says, may be made use of in bad cases.

We have taken pains to give his views upon bloodletting at some length, because, after wonderful vicissitudes of fortune during centuries, the remedy is yet upon trial before the profession, and the author's standing, experience, and judgment are such, and the authority he advances to sustain him so eminent, that justice requires they should be taken into account when summing up the evidence in its favour. Before claiming a verdict of "unworthy of confidence," the counsel for the rejection of it must be required to bring in rebutting testimony of equal weight and character.

By this time certainly our readers are enabled to form some judgment of the author and his book. We have endeavoured to show how he handles his subject, and have given some little of his experience, some specimens of his mode of treating disease, perhaps very imperfectly rendered his style, yet have certainly shown the spirit which animated his efforts; it is one of candour, of earnest inquiry for truth, of the utmost desire for the attainment of the great object of our profession—the best mode of curing disease. With thankfulness for the addition he has made to medical literature, with great respect for his learning, with reliance upon his vast experience, and confidence in his judgment, we place his work beside those of the greatest physicians of modern times—we class him with Graves, and Copland, and Simpson, and Trousseau. J. C. R.